

What is claimed is:

1. A *B. pertussis* cysteine desulfase knockout mutant.
2. A method of producing PT comprising growing a *B. pertussis* cysteine desulfase knockout mutant in a *B. pertussis* culture medium, and isolating the PT from the culture medium.
3. A method for the enhanced production of PT, comprising cultivating *B. pertussis* cysteine desulfase knockout mutant, whereby an enhanced amount of PT produced is produced compared to when a non-cysteine desulfase knockout mutant is employed.
4. A peptide comprising the amino acid sequence GGGDGSFSGFGDGSFSGFG-OH (SEQ. ID. NO. 5).
5. A method of isolating a bacterial toxin from a mixture comprising:
preparing a peptide affinity column wherein said peptide has the amino acid sequence comprising GGGDGSFSGFGDGSFSGFG-OH (SEQ. ID. NO. 5);
adding said mixture containing said bacterial toxin to said peptide affinity column wherein said bacterial toxin binds to said peptide;
releasing said bound bacterial toxin from said peptide; and
collecting said isolated bacterial toxin.
6. The method according to claim 5 wherein said bacterial toxin is derived from the genus *Bordetella*.
7. The method according to claim 6 further comprising *Bordetella* species selected from the group consisting of *pertussis* and *bronchiseptica*.
8. The method according to claim 5 wherein said bacterial toxin is *pertussis* toxin or *pertactin*.

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